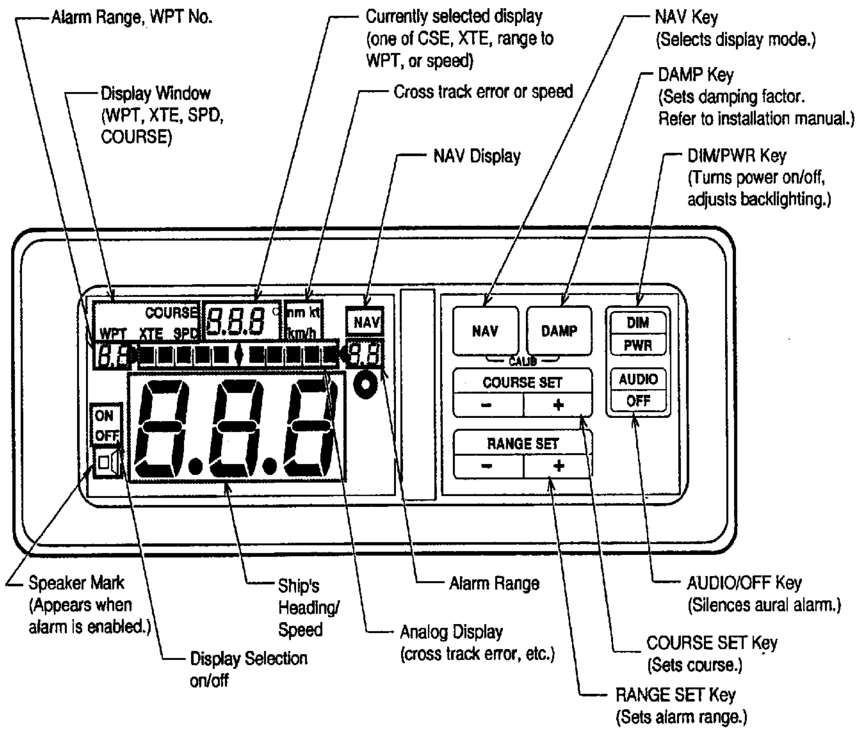
FURUNO®

DC-2000 Digital Compass

Operator's Manual

⚠ WARNING

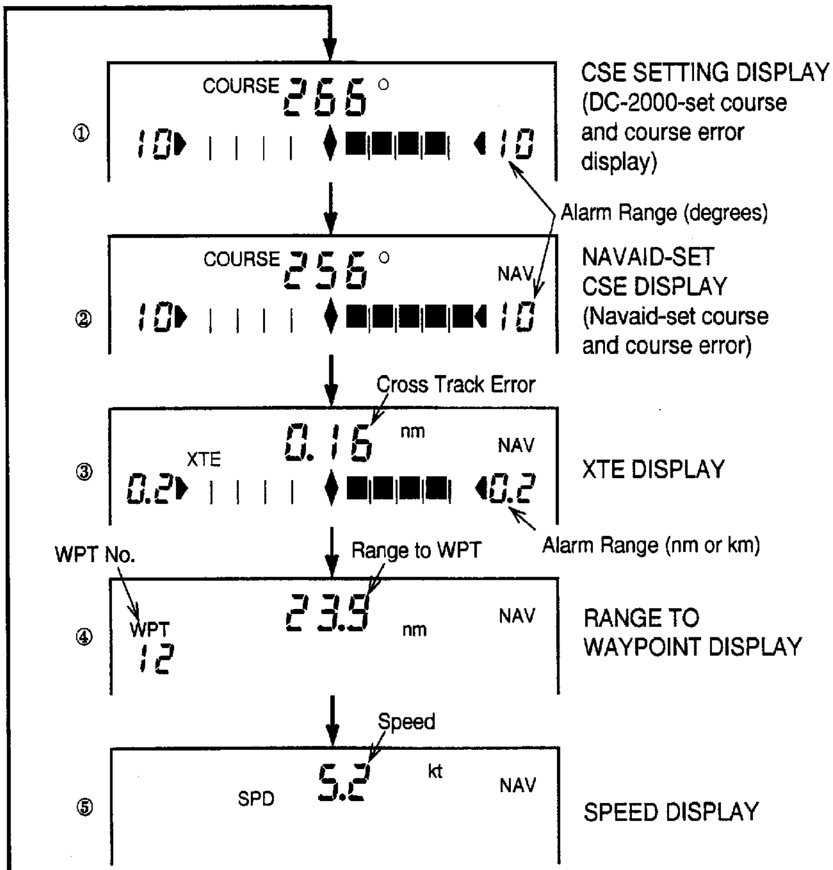
Do not disassemble or modify the equipment. Fire, electrical shock or serious injury canresult.	**Use the correct fuse.** Use of a wrong fuse can cause fire or equipment damage.



Turning the power on/off	**Turning the power on** Press [DIM/PWR] . Ship's heading or ship's speed appears. **Turning the power off** Press [DIM/PWR] and [AUDIO/OFF] together for more than two seconds.
Adjusting display brilliance	Press [DIM/PWR] for more than two seconds. Then, each pressing of the key changes the brilliance in one of four levels. Current brilliance setting [d-0 (dark), d-1, d-2 or d-3 (bright)] appears on the display. If more than four seconds elapses between pressings of the key, last-selected brilliance is used.

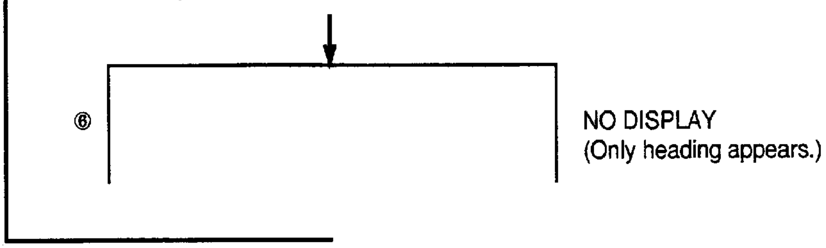
Selecting display mode

There are six displays modes from which to choose. Press the [NAV] key to select display mode desired. Each pressing of the key changes the display in sequence shown below. Displays turned off as mentioned on page 6, however, do not appear.



<u>When the speed display is shown you can;</u>

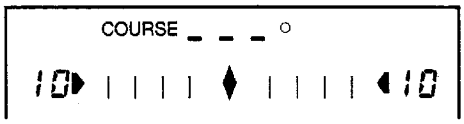
- alternate between it and the bearing display by pressing [COURSE SET + or –].
- alternate between no display and the analog speed meter display by pressing [RANGE SET + or –] (maximum scale range 50 kt or 100 km/h).



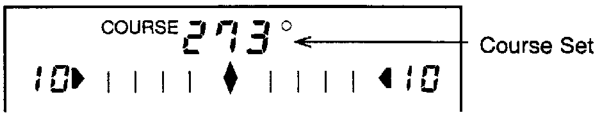
NOTE: *When no navigation data is received from navigation equipment "NAV" blinks and "---" blinks in place of figures.*

Setting course

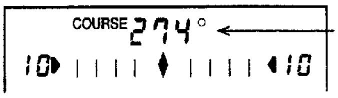
1. Press [NAV] to display course setting display (① on page 2).



2. Press [+] and [–] of [COURSE SET] together. Current heading becomes course.



3. Press [+] (or [-]) of [COURSE SET] to set course desired.

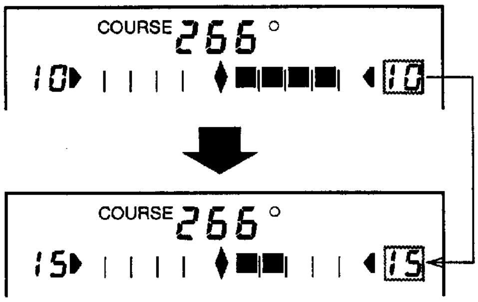


Press [+] or [-] keys to increase or decrease figure by 1°. You can hold down those keys to speed rate of change.

Setting alarm range

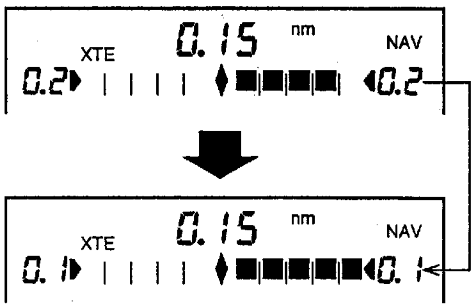
Press [+] or [–] of [RANGE SET] to set alarm range.

When display is course setting display ① or navaid-set course ②

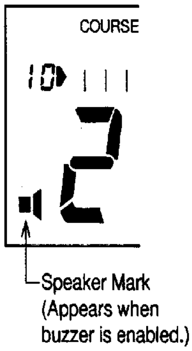
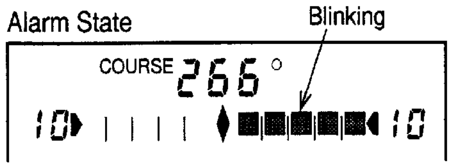


Press [+] or [–] to change display in increments of +5° or -5° (max. 90°).

When the display shows XTE display ③

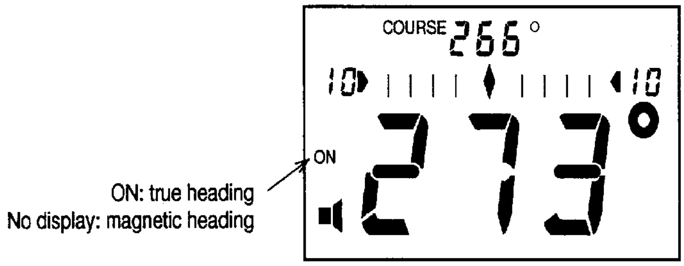


Press [+] or [–] to change display in increments of +0.1 or -0.1 (max. one nautical mile or kilometer).

Enabling buzzer for alarms	Press [AUDIO/OFF] to enable (or disable) the alarm. Each pressing enables or disables the alarm. When appears the aural alarm is enabled. When no appears the aural alarm is disabled. 
When alarm setting is exceeded	 **<u>Silencing the buzzer</u>** When the ship exceeds the alarm settings the buzzer sounds and the analog indicator blinks. You can silence the buzzer by pressing [AUDIO/OFF]. The visual alarm remains blinking on the display until the cause of the alarm is removed.
About the buzzer	The unit alerts you to various conditions by sounding the buzzer a number of times according to key operation or alarm condition. One beep: correct keying sequence executed Two beeps: wrong keying sequence Continuous: alarm setting violation or sensor error

Changing heading display (true or magnetic)

Turn power on while pressing and holding down [–] of [RANGE SET]. Each time you repeat this keying sequence the heading is selected to true or magnetic.



True heading is not available in the following cases:

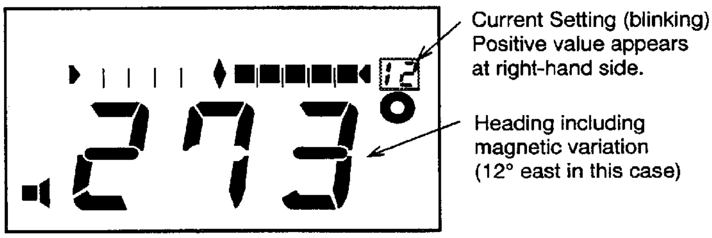
- No navigation equipment is connected to the DC-2000.
- No or incorrect magnetic variation data from navigation equipment.
- Magnetic variation not entered in the DC-2000.

Manually entering magnetic variation

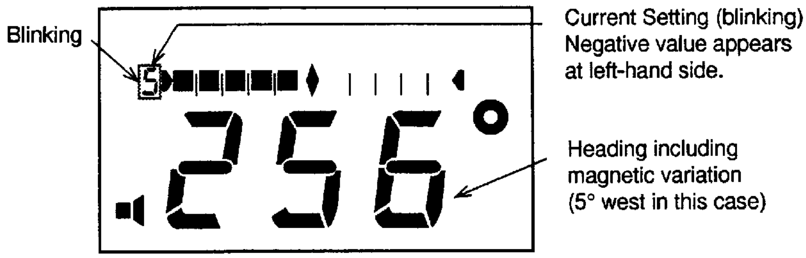
When no magnetic variation information is available from navigation equipment, enter it as follows. (When variation information becomes available it takes priority over manually entered variation.)

1. Press and hold down [+] and [–] of [RANGE SET] and [DAMP] more than two seconds to display magnetic variation setting. (It takes more than two seconds to show this display.)

Magnetic Variation Display, Positive Value



Magnetic Variation Display, Negative Value

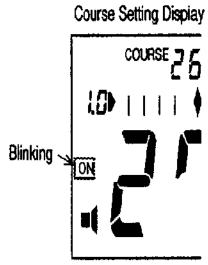


2. To change the setting, press [+] or [–] of [RANGE SET]. If no key is pressed within four seconds control is returned to the normal display (last setting is entered.)

Turning displays on/off

There are six different display modes, some which you may not require. You can turn off unnecessary displays as follows.

1. Turn on the power while pressing and holding down [+] of [COURSE SET]. The unit is powered and the display in use when the power was turned off appears.
2. Press [DAMP] to turn the display on or off.
3. Press [NAV] to display the next display mode indicated on page 2.
4. Press [DAMP] to turn the display on or off.
5. Repeat steps 3 and 4 above to turn on or off other displays shown on page 2.



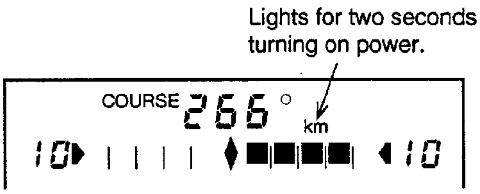
6. While pressing either [+] or [–] of [COURSE SET], press [NAV]. Control is returned to the normal display.

NOTE: *In the default setting all displays are turned on. Turning off all displays will mean only the heading is displayed.*

Changing units of range and speed measurement

Turn on the power while pressing and holding down [+] of [RANGE SET]. Each time you repeat this keying sequence, the units of range and speed measurement change in the sequence of

km ↔ nm
km/h ↔ kt

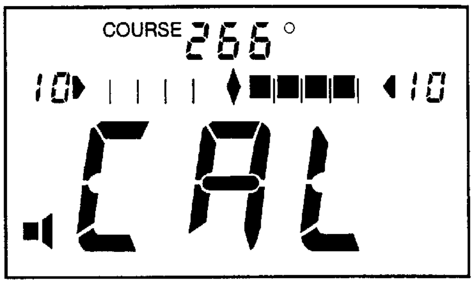


When there is equipment error...

When the unit detects equipment error it displays an error message and releases beeps intermittently. This occurs in the following cases.

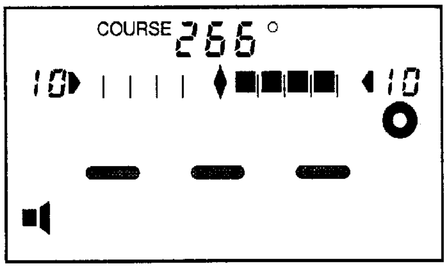
When heading cannot be calculated

When heading cannot be calculated because of strong magnetic field, the following display appears.



NOTE: *When normal operation is automatically restored shortly after the above display appears this is an indication of temporary magnetic field disturbance. If normal is not automatically restored, compensate the unit for magnetic field distortion by referring to the installation manual.*

Sensor fault



When there is no heading signal from the sensor, the display will look something like the one shown left. This is an indication of sensor fault or signal cable problems. The sensor is working properly if its #2 LED is lighting.

Disabling the buzzer

Turn on the power while pressing and holding down [–] of [COURSE SET].

Then, the buzzer does not sound against equipment fault. To re-enable the buzzer, repeat the above procedure.

NOTE: *By disabling the buzzer and connecting only navigation equipment the DC-2000 can function as a ship's speed monitor.*

Self-test

Starting the self-test

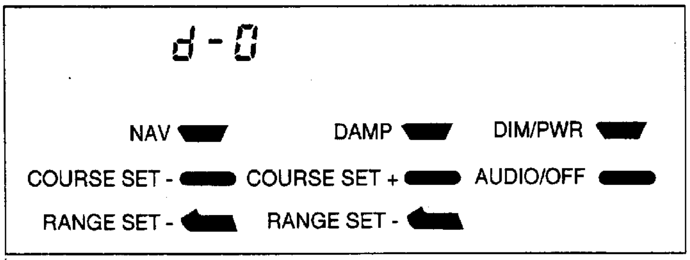
Turn on the power while pressing and holding down [NAV]. Release both keys when the display lights.

LCD segment test

Segments of the display appear one by one and blink. Then, all segments appear twice and blink. The testing stops when "d-0" appears.

Key, backlighting test

Press each key one by one to check keys and backlighting. A key is operating properly if its corresponding segment lights. Each pressing of a key should change backlighting in one of four levels. "PAS" appears on the display after all keys have been pressed.



ROM and Tx/Rx circuits test

This test checks the ROM and the Tx/Rx circuits for proper operation. For the Tx/Rx test, connect the sensor cable (supplied) between "XDR" and "I/F" connectors before conducting the test.

When the test is executed all data are erased.

The sequence of the testing is as follows:

While pressing and holding down both [DAMP] and [NAV], press the [DIM/PWR]. Then, the following occurs.

- "EEP" appears on the display.
- If the EEPROM is normal, "EEP" is replaced by "PAS."
- If the EEPROM is abnormal, "Err" appears.
- If EEPROM fault is found, "the test does not proceed to the Tx/Rx circuit test and "Err" remains on the display.
- The Tx/Rx circuit is checked.

